

FAST INSTRUCTION DEPENDENCY MULTIPLEXER

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ABSTRACT

According to an embodiment of the present invention, a method and apparatus is described for selecting dependencies between a fast scoreboard and a slow scoreboard in an out of order processor. The processor fetches instructions in groups of eight instructions. Each group of eight instructions is mod-eight rotated. The instructions in the scoreboards are configured into multiple octets. A select mask for the first instruction of each octet is generated using a predefined truth table. The select masks for remaining instructions in the octets are generated using the first mask. The write pointer for the current instruction is used to select the masks for the group of eight instructions. The selected masks are then used to multiplex dependencies between the scoreboards. The selected masks are configured to multiplex dependencies between the scoreboards for single or multi-strand operations.